

TECHNICAL MEMORANDUM

DATE: December 3, 2009

TO: Bob Galati, City of Sherwood

FROM: Chris Maciejewski, P.E.
Garth Appanaitis

SUBJECT: **Sherwood Transportation System Plan References of Oregon Street
Alignment and Columbia Street Functional Class**

P#08251-000-000

The proposed change in functional classification of Columbia Street is predicated on ODOT Rail order 50673, which permitted alteration of the Oregon Street rail crossing and connection of Adams Avenue to Oregon Street. As noted by City of Sherwood staff¹, the ODOT Rail order found that the crossing alterations were "required by the public safety, necessity, convenience and general welfare." As a result of this approved alteration which allowed the Oregon Street rail crossing to remain open, the realignment of Columbia as a Collector street is no longer needed, as discussed in our July 9, 2009 memorandum. This memorandum summarizes the key components of the current City of Sherwood Transportation System Plan (TSP)² that would need to be modified to implement the following proposed TSP amendments:

- Maintain the Oregon Street railroad crossing as approved in ODOT Rail Order 50673 (attached)
- Modify the classification of Columbia Street from a collector street to a local street
- Remove the Oregon Street extension/realignment from the railroad crossing to Pine Street (via Columbia Street)
- Construct Columbia Street to Foundry Avenue as a developer driven local street project

The current City of Sherwood TSP modal chapters (Chapters 5 through 9), funding chapter (Chapter 10), and the executive summary (Chapter 1) we reviewed to identify key text, figures, and tables that identify projects, designations, policies, or costs associated with Oregon Street and/or Columbia Street. These items in the TSP are listed in the following bullets to identify specific TSP edits that would be needed:

- Page 1-5: Downtown Street Plan is discussed including the modification to Oregon Street.
 - *Remove discussion about modifications to Oregon Street*

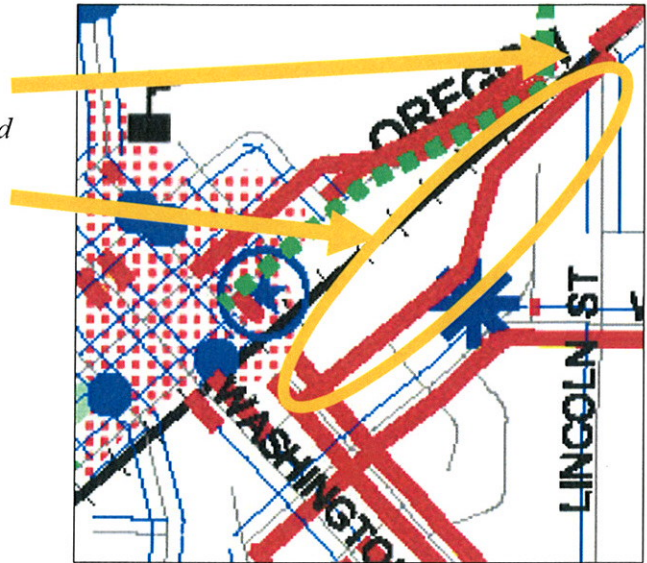
¹ Email from Bob Galati and Julia Hajduk, City of Sherwood, December 3, 2009.

² *City of Sherwood Transportation System Plan*, prepared by DKS Associates, adopted March 15, 2005.

- Page 1-5: Motor Vehicle projects for City of Sherwood subtotal
 - Reduce amount from \$36.9 million to \$34.1 million to reflect the removal of project 6 (Oregon Street realignment)
- Table 5-2: Action Plan Pedestrian Projects
 - Modify Oregon Street project to be from Lincoln Street to Ash Street, with a length of 1,200 feet

- Figure 5-1: Pedestrian Master Plan

- Connect the planned Oregon Street sidewalks across the railroad
- Remove the Columbia Street-Oregon Street Extension sidewalks from the Action Plan



- Figure 6-1: Bicycle Master Plan

- Connect the planned Oregon Street bicycle facility across the railroad
- Remove the Columbia Street-Oregon Street Extension bicycle facility from the Master Plan



- Table 8-11: City Street Projects 6
 - Remove project 6 (Oregon Street realignment)
 - Change Subtotal (City) from \$34,550 to \$31,750
 - Change Total (City Funded) from \$36,875 to \$34,075

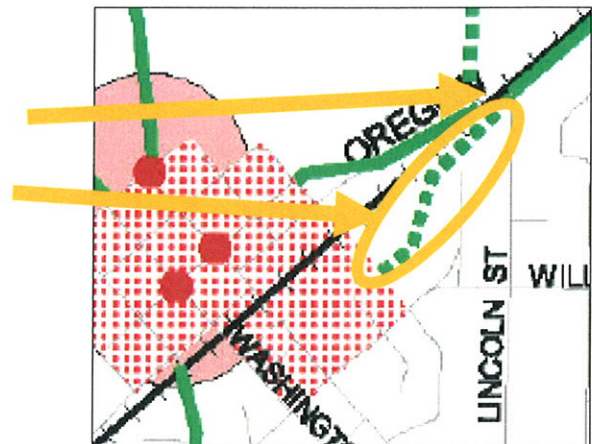
- Figure 8-1: Functional Class Map

- Reconnect Oregon Street as a collector across the railroad
- Remove the Oregon Street Extension to Pine Street (via Columbia Street)
- Downgrade Columbia Street to local street



- Figure 8-7: Streets Where ROW is Planned for More Than Two Lanes

- Reconnect Oregon Street as a collector across the railroad
- Remove the Oregon Street Extension to Pine Street (via Columbia Street)

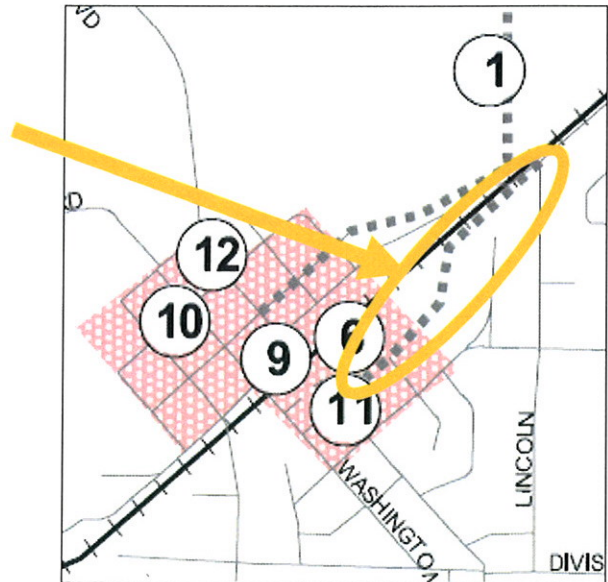


- Figure 8-8: Local Street Connectivity

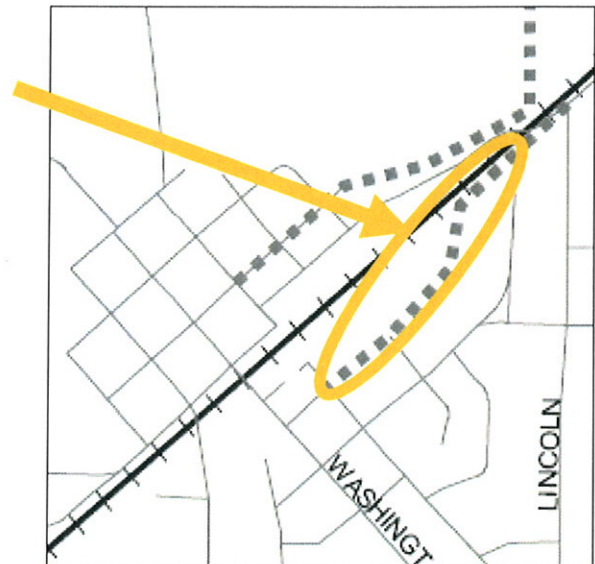
- Reconnect Oregon Street as a collector across the railroad
- Remove the Oregon Street Extension to Pine Street (via Columbia Street)



- Figure 8-9: Motor Vehicle Master Plan
 - *Remove Project #6 the Oregon Street Extension to Pine Street (via Columbia Street)*



- Figure 8-10: Traffic Control Master Plan
 - *Remove Project #6 the Oregon Street Extension to Pine Street (via Columbia Street)*



- Page 9-2: First paragraph has discussion of the Oregon Street railroad crossing closure and road realignment
 - *Remove discussion of Oregon Street realignment and rail crossing elimination*

- Table 10-2: Sherwood Action Plans Costs over 20 Years
 - *Adjust Motor Vehicle cost to \$34,075,000*
 - *Adjust Pedestrian costs to \$2,330,000*
 - *Adjust Total Capital Project costs to \$43,700,000*
- Table 10-4: Pedestrian Action Plan Projects
 - *Change Oregon Street project limits to be Lincoln Street to Ash Street, with a cost of \$65,000 and a length of 1,200 feet.*
 - *Adjust total cost of all projects to be \$2,330,000 with a total length of 37,200 feet*
- Table 10-5: Other Motor Vehicle Project Costs for All Funding Sources
 - *Reduce amount of "Unfunded City Action Plan Costs" or "Urban Renewal District" by \$2,800,000 depending on funding source for Project 6 (Oregon Street realignment)*
- Page 10-13 through 10-15: SDC Calculations based on Total Capital Project costs
 - *Update SDC calculations based on adjusted project cost (\$2,800,000 removed from total of \$74,125,000)*



Oregon

Theodore R. Kulongoski, Governor

Department of Transportation

Rail Division

555 13th St NE Ste 3

Salem, OR 97301-4179

(503) 986-4321

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March 26, 2008

File Code:

TO ALL PARTIES

RX 1454: In the Matter of the Alteration of the Railroad-Highway Grade Crossing at SW Oregon Street and UNION PACIFIC RAILROAD COMPANY, a Delaware Corporation, leased to PORTLAND & WESTERN RAILROAD (PNWR), INC., West Side District, in Sherwood, Washington County, Oregon.

Enclosed is your copy of final Order No. 50673, granting the legal authority to construct, alter or close a public crossing in the above-cited matter. This Order is a compliance document, the terms of which are binding upon the affected road authority(s) and railroad(s) and enforceable, if necessary, in a court of law.

All parties are requested to distribute copies of this Order to all persons in their agency or company who are involved in the project as supervisors, contractors and quality assurance inspectors. If the project supervisor should change, please assure that a copy of this Order, and the importance of its provisions, is provided to the new project manager and inspectors. Please monitor the construction to ensure ongoing compliance with the Order.

Order No. 50673 requires that all parties provide written notice of completion of the project to the Rail Division. Upon receipt of this notice, Rail Division Staff will carefully inspect the project for compliance with the Order. Any deficiency or non-compliance item(s) found by Staff will be sent to the party responsible for installation/maintenance of that item. Rail Division does not consider a project complete until it passes final inspection for compliance with the Order.

For most projects, the applicant has the major burden of quality control as they are bearing the costs of construction, installation of traffic control devices, etc. Parties are welcome to invite me to the pre-construction meeting, or call me with questions.

I wish you a successful project completion, in hopes that it will promote the safety of our citizens at railroad-highway crossings.

Michael "Swede" Hays
Railroad Compliance Specialist

Enclosure: Copy of Order No. 50673

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ORDER NO. 50673

ENTERED 03/25/2008

ODOT CROSSING NO. P-757.90

U.S. DOT NO. 754216N

**BEFORE THE OREGON DEPARTMENT
OF TRANSPORTATION**

RX 1454

In the Matter of the Alteration of the Railroad-Highway)
Grade Crossing at SW Oregon Street and UNION)
PACIFIC RAILROAD COMPANY, a Delaware)
Corporation, leased to PORTLAND & WESTERN)
RAILROAD (PNWR), INC., West Side District, in)
Sherwood, Washington County, Oregon.)

ORDER

On December 18, 2007, City of Sherwood, made application under ORS 824.206 seeking authority to alter the subject grade crossing. The affected railroad is PNWR. The public authority in interest is the applicant.

Rail Division staff has investigated the application. On February 19, 2008, staff served the application and a Proposed Final Order (PFO) for all parties to review and acknowledge their agreement with its terms. No objections to the PFO were received from any party. All parties in this matter have agreed that the proposed crossing alterations are required by the public safety, necessity, convenience and general welfare. Therefore, under ORS 824.214, the Department may enter this Order without hearing.

The Appendix to this Order depicts the proposed realignment and improvements to the SW Oregon Street/SW Adams Avenue intersection adjacent to the grade crossing. The realigned roadway will intersect the tracks at an angle of ≈ 58 degrees. The average daily traffic volume at the reconfigured crossing is $\approx 9,000$ vehicles. There is a daily average of one freight train movement over the crossing at a maximum authorized speed of 25 miles per hour (mph). There have been no reported train-vehicle collisions at the crossing within the past 10 years.

As part of the project, applicant proposes to construct a multi-use path, raised medians, and designated pedestrian crosswalks, depicted in the Appendix to this Order. New flashing-light signals and automatic gates as depicted in the Appendix to this Order, Sheet 1, will be installed at the crossing to accommodate the realigned roadway.

New vehicle traffic signals (VTS) will be installed at the intersection SW Oregon Street and SW Adams Avenue. The VTS will be interconnected with the new crossing signals, as depicted in the Appendix to this Order. The interconnection will provide train preemption of traffic signal phases and shall operate such that when an approaching train is detected, all conflicting traffic moves will receive a RED signal indication.

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Applicant further proposes to install standard guardrail adjacent to the new crossing signals, along with new pedestrian crosswalk markings in lieu of stop clearance lines. A ground-mounted STOP HERE ON RED (R10-6) sign with attached High Level Warning device flag kit will be installed in the NE quadrant of the crossing as depicted in the Appendix to this Order. One NO TURN ON RED (R10-11a) sign will be mounted on the VTS cantilever arm facing westbound Oregon Street traffic.

From the foregoing, the Department finds that the requested crossing alterations are required by the public safety, necessity, convenience and general welfare. The application should be granted upon the following terms.

IT IS THEREFORE ORDERED that:

1. The authority to alter the subject grade crossing is granted. Alterations shall be completed within two years from the entered date of this Order. No authority to establish a Quiet Zone is granted by this Order.
2. Applicant (City of Sherwood) shall:
 - a. Construct and maintain that portion of the crossing lying outside lines drawn perpendicular to the end of ties to accommodate the roadway configuration and multi-use path, as depicted in the Appendix to this Order, and bear all the costs. The roadway approaches shall comply with OAR 741-120-0020 (1), (2), (3), and (4).
 - b. Furnish, install and maintain VTS at the intersection of SW Oregon Street and SW Adams Avenue to accommodate the train preemption operations described above in the body of this Order, and bear all the costs. During train preemption, the VTS shall operate as depicted in the Appendix to this Order, Sheet 3.
 - c. Furnish, install and maintain an interconnection between the VTS and ordered crossing signals, and bear all the costs. The interconnection shall provide train preemption of the normal operation of the traffic signals, as described above in the body of this Order.
 - d. Furnish, install and maintain standard guardrail (urban installation) according to OAR 741-110-0030 (6) adjacent to the ordered automatic signals at the crossing, and bear all the costs.
 - e. Furnish, install and maintain one ground-mounted STOP HERE ON RED (R10-6) sign with attached High Level Warning Device flag kit, and bear all the costs. The sign shall be mounted at the crossing, located in the NE quadrant of the crossing, as depicted in the Appendix to this Order, Sheet 2. The sign shall not obstruct approaching motorists' view of the ordered automatic signals.
 - f. Furnish, install and maintain one NO TURN ON RED (R10-11a) sign, mounted on the VTS cantilever arm and aimed at westbound traffic on SW Oregon Street, as

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depicted in the Appendix to this Order, Sheet 2, and bear all the costs.

- g. Furnish, install and maintain one side road advance warning (W10-4) sign facing southbound SW Adams traffic and three advance warning pavement markings (AWPM) on the multi-use path approaches to the crossing, according to OAR 741-110-0030 (5) (a) and 741-110-0030 (5) (d), respectively, and bear all the costs. The W10-4 sign and AWPM's shall be located as depicted in the Appendix to this Order, Sheet 1.
- h. Furnish, install and maintain four bicycle warning (OBW8-19L and -19R) signs on the multi-use path approaches to the crossing, located as depicted in the Appendix to this Order, Sheet 2, and bear all the costs.
- i. Furnish, install and maintain three standard non-mountable curb medians, located as depicted in the Appendix to this Order, Sheet 2, and bear all the costs.
- j. Furnish, install and maintain one YIELD (R1-2) sign, located as depicted in the Appendix to this Order, Sheet 1, and bear all the costs.
- k. Bear all the cost of work items listed in paragraphs 3.a., 3.b., 3.c., and 3.d., below.

3. Portland & Western Railroad shall:

- a. Subject to reimbursement by applicant, construct that portion of the crossing lying between lines drawn perpendicular to the end of ties of each track to accommodate the roadway configuration and multi-use path as depicted in the Appendix to this Order.
- b. Subject to reimbursement by applicant, furnish and install two flashing-light signals, and two automatic gate signals at the crossing. The signals shall be located as depicted in the Appendix to this Order, Sheet 2. The signals shall be activated according to OAR 741-110-0070 (1) and (2).
- c. Subject to reimbursement by applicant, furnish and install additional flashing-light signals aimed at southbound traffic on SW Adams Avenue, and located as depicted in the Appendix to this Order, Sheet 2.
- d. Subject to reimbursement by applicant, furnish and install the interface box, equipped with contact terminals and attached to the crossing signal house, and interconnection circuitry on the railroad side of the contact terminals to facilitate the traffic signal preemption as described above.
- e. Maintain the ordered automatic signals and circuitry, traffic signal interconnection circuitry on the railroad side of the contact terminals in the interface box, that portion of the crossing lying between lines drawn perpendicular to the end of ties, and bear all the costs.


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- f. Notify the Rail Division of the Department in writing or by facsimile transmission not less than five working days prior to the date that the ordered automatic signals will be activated and placed in service.
- 4. Each party shall notify the Rail Division of the Department in writing upon completion of its portion of the project.

All previous Orders of the Public Utility Commission or the Department relating to the subject grade crossing, not in conflict with this Order, remain in full effect.

Made, entered, and effective

March 25, 2008



Kelly Taylor
Rail Division Administrator

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DEPARTMENT OF TRANSPORTATION

CERTIFICATE OF SERVICE

RX 1454

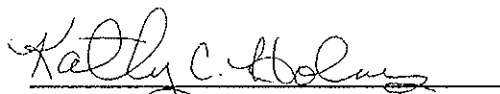
I, Kathy C. Holmes, Executive Assistant of the Rail Division for the Department of Transportation of the State of Oregon, hereby certify that on the 26th day of March, 2008, I served copies of Staff's Service Letter and Final Order No. 50673 upon the appropriate parties listed below via regular mail at Salem, Oregon, with postage prepaid and addressed as their addresses appear in the records of the Department of Transportation.

Applicant

Tom Pessemier
City of Sherwood
22560 SW Pine Street
Sherwood OR 97140

Parties

Dale A. Hansen, VP Engineering
Portland & Western Railroad Co
650 Hawthorne AVE SE STE 220
Salem OR


Kathy C. Holmes, Executive Assistant
Oregon Department of Transportation
Rail Division